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SOUTHERN FORESTRY NOTES

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OAK WILT IN ARKANSAS

The oak wilt disease, which before the past summer had not been found south of the Missouri border, has now been found in northern Arkansas. A survey discovered the wilt in Baxter, Craighead, Fulton, Independence, Logan, and Newton Counties.

The survey was carried out cooperatively by the Arkansas Resources and Development Commission and the Division of Forest Pathology of the U. S. Department of Agriculture. Airplanes were used to scout out the disease. Suspected infections were then checked on the ground and by laboratory analysis.

None of the infections involved more than a few trees. Two infections in Fulton County and one in Baxter County appeared, from the condition of a few standing dead trees, to be 2 to 3 years old. All other cases of wilt involved only single trees in the active stages of wilting, indicating that the disease apparently appeared at these locations in 1950. The southernmost location of the disease was near Booneville, in Logan County. The method of spread is still unknown.--T. W. Bretz and Berch W. Henry, Bureau of Plant Industry, Soils, and Agricultural Engineering.

CORD MORTALITY IN UNTHINNED PINE STANDS

The volume of merchantable wood lost through mortality in unthinned pine stands of various ages is shown by seven small unthinned plots at Urania, Louisiana, and Crossett, Arkansas. The plots are in dense old-field stands, predominantly loblolly

but including some shortleaf pine. They have been remeasured every 5 years over periods of 10 to 30 years.

Average annual mortality per acre for 5-year periods has been as follows: Starting at ages below 26 years, generally less than 0.1 cord but ranging up to about 0.4 cord as ages approach 25 years. Starting at ages of 26 to 30 years, an average of almost 0.5 cord. Starting at ages of 31 to 50 years, an average of 0.6 cord.

Mortality has been very erratic from one 5-year period to another, as would be expected in small plots. The average of 0.6 cord, for example, is based on mortality that ranged from 0.3 to 1.5 cords. The plots represent a considerable range of site quality, but site did not seem to affect mortality.--Henry Bull.

VARIATIONS IN DIAMETER-TAPE MEASUREMENTS

A test was recently made in south Alabama to determine the differences between diameter measurements made by several different men and by the same man on wet and dry days. The range in average d.b.h. of the same 50 second-growth longleaf pines measured by five men on the same day proved to be 7.20 to 7.28 inches. The range between averages of the same 50 trees measured by one man on 3 different dry days was 7.19 to 7.21 inches. On wet days, the diameter readings were consistently higher than on dry days: the range between averages of the same 50 trees measured by the same man on 3 different wet days was 7.23 to 7.24 inches.

These measurements were made with diameter tapes. The men were experienced and breast height points had been marked on the trees. Variations were probably due largely to differences in the amount of pull applied to the tape. Variations between men were appreciable, and even greater differences can be expected if workers are inexperienced or careless, or if breast height points are not marked.--J. J. Brasington.

DIRECT SEEDING GIVES GOOD RESULTS

Direct seeding of pine has given good results in field tests conducted near Alexandria, Louisiana. Satisfactory stands were established by sowing good seed in the fall on prepared sites. Growth has also been good--comparable to planted stands. After 3 years, for example, slash pine on prepared sites is about 4 feet high and some longleaf has started height growth.

The following procedure is recommended:

1. Burn or disk before seeding. This controls mice and other seed-eating rodents by disturbing the ground cover, and also helps germination and rooting. Disking is more costly than burning, but is more likely to secure a good stand, particularly in a dry year following seeding.
2. Seed in November or early December. The weather will be warm and moisture usually adequate to encourage prompt germination. Large flocks of seed-eating birds, especially blackbirds, are least likely to be troublesome at this time of year. Seedlings established in the fall are also better able to survive the first year.
3. Sow fresh seed of good quality, at a rate of 15,000 seeds per acre. This is equivalent roughly to 3 pounds of longleaf or three-fourths pound of slash pine seed. If poor seed is used, sow proportionately more.
4. Sow seed broadcast. It is more efficient and cheaper than drill or spot seeding. On small areas, sowing may be done with hand seeders commonly used on the farm. On large areas, it can be done most efficiently by airplane. Commercial flying services equipped to dust cotton and sow farm crops can sow pine seed very satisfactorily, and at a very low cost. In December 1948, a plane successfully seeded 1,200 acres on the Kisatchie National Forest, at a cost much below that of planting.--H. H. Muntz.

DOUGLAS-FIR SHIPMENTS TO THE SOUTH

Over 780 million board feet of Douglas-fir were shipped into Texas, Louisiana, Mississippi, Alabama, Arkansas, Oklahoma, and Tennessee during 1949, according to figures from railroad companies, port authorities, and lumber associations. Shipments in 1950 will probably be considerably higher, for 536 million board feet were delivered during the first 6 months of this year alone.

By far the greatest volume goes to Texas, which imported 302 million board feet during the first half of this year.

Shipments by railroad during the first 6 months of 1950 totalled 17,530 cars, or 526 million board feet. Shipments by water were 16,323 tons, or about 10 million board feet.--Mark M. Lehrbas.

RECENT PUBLICATIONS BY STAFF MEMBERS

Campbell, R. S., and F. A. Peevy. Poisoning...undesirable southern hardwoods.... American Midland Naturalist, September 1950, pp. 495-505.

*Carpenter, R. D. Amount of chippable waste at southern pine sawmills. Occasional Paper 115.

*Cruikshank, J. W. 1949 pulpwood production in the South. Forest Survey Release 35, published jointly with the Southeastern Forest Experiment Station.

Huckenpahler, B. J. Development of 19-year-old southern pine plantations in Tennessee. Journal of Forestry, October 1950, pp. 722-23.

*Reynolds, R. R. 1950 cutting records, farm forestry compartments.

*Siggers, P. V. Possible mechanism of variation in the imperfect stage of Scirrhia acicola. Phytopathology, August 1950, pp. 726-28.

*Verrall, A. F., and P. V. Mook. Adsorption of sap stain and mold-control chemicals by wood. Industrial and Engineering Chemistry, pp. 1350-55, July 1950.

*Wakeley, P. C. Directions for testing southern pine seed at forest nurseries. Mimeographed, 11 pp.

*Copies are available at the Southern Station.